ISS Commercial Resupply Contract Responses to Industry Questions and Comments

Q-1 Will not non US companies be allowed to participate to the bid? Which role(s) could they have? (prime, sub,...)

Foreign Companies

The Commercial Space Act of 1998 (codified at 41 U.S.C. 14701 et seq.), the Iran, North Korea, and Syria Nonproliferation Act (P.L. 106-178, as amended by P.L. 107-228 and P.L. 109-353), and the U.S. Space Transportation Policy dated December 21, 2004 place limitations on foreign participation. The Commercial Space Act of 1998 requires the prime contractor for ISS CRS be a United States commercial provider as defined in 41 U.S.C. 14701. Paragraph 1.1 in section IV.A.1 of the draft RFP contains the statutory definition of a United States commercial provider. The Iran, North Korea, and Syria Nonproliferation Act prohibits NASA from making payments to the Russian Federal Space Agency, any organization or entity under the jurisdiction or control of the Russian Federal Space Agency, or any other organization, entity, or element of the Government of Russian in connection with the International Space Station after December 31, 2011. Paragraph 1.3 in section IV.A.1 of the draft RFP contains the statutory definition of the term "organization or entity under the jurisdiction or control of the Russian Federal Space Agency." NASA has applied the restrictions in this Act to include funding of Russian entities via NASA contractors, which includes their subcontractors. The U.S. Space Transportation Policy requires that "United States Government payloads shall be launched on space vehicles manufactured in the United States." Interpretation of this provision is the responsibility of the White House Office of Science and Technology Policy (OSTP). Historically, the domestic manufacturing requirement has been interpreted to apply to launch vehicles and not payloads. NASA has not consulted with OSTP to evaluate a transfer vehicle under the policy. NASA would seek to consult with OSTP about the application of the policy requirement to any specific proposal.

Q-2 My company, XXXX, arranges for large truckload transportation. Will this job require a sub-contractor that has these capabilities?

NAICS code

Each prime contractor will have different subcontracting opportunities available, which may include "truckload transportation." NASA will place the Preproposal Conference Sign-In Sheet on the ISS Commercial Resupply Services website to promote subcontracting and teaming opportunities

Tuesday, April 08, 2008 Page 1 of 41

Q-3 How does the "nonscheduled chartered air freight transportation" part of the [NAICS] classification code fit in? Is the ISS considered a "Charter"?

NAICS code

No. This contract is not for chartered air freight transportation and the ISS is not considered a "charter". The referenced NAICS code includes the following description which better defines the type of services NASA intends to procure: "Space transportation, freight, nonscheduled." From the RFP: The Contractor will "provide cargo resupply to the International Space Station, dispose of unneeded cargo, and return cargo from the ISS back to NASA.... Contracts may include missions for pressurized or unpressurized delivery, disposal, return, or any combination thereof." This is the service NASA intends to procure with this contract.

Q-4

While there is the description "The Buy American Act is not applicable in this solicitation or contract" on the top of Page 47, IV.A.1 MINIMUM REQUIREMENTS on Page 52 requests offerors to certificate whether or not they will comply with US Commercial Provider of Space Transportation Services. Although this seems to declare "is" or "is not" as certification, the title seems to be the mandatory requirement. How should we interpret this requirement?

Foreign Companies

Although the Buy American Act does not apply to the solicitation, other statutes as such the Commercial Space Act of 1998, codified at 42 U.S.C. 14731 et seq., apply to this solicitation. Section 201 of the Commercial Space Act of 1998 states that "except as otherwise provided in this section, the Federal Government shall acquire space transportation services from United States commercial providers whenever such services are required in the course of its activities." Paragraph 1.1 in section IV.A.1 of the RFP is mandatory and requires the offeror to certify whether it is a "United States commercial provider" as defined by the Commercial Space Act of 1998. Therefore, except as otherwise provided in the Commercial Space Act of 1998, statute prevents NASA from awarding a contract to any offeror that indicates it "is not" a U.S. commercial provider.

Q-5 Is this solicitation for space launch or for air charters?

NAICS code

No. This contract is not for chartered air freight transportation and the ISS is not considered a "charter". The referenced NAICS code includes the following description which better defines the type of services NASA intends to procure: "Space transportation, freight, nonscheduled." From the RFP: The Contractor will "provide cargo resupply to the International Space Station, dispose of unneeded cargo, and return cargo from the ISS back to NASA.... Contracts may include missions for pressurized or unpressurized delivery, disposal, return, or any combination thereof." This is the service NASA intends to procure with this contract.

Tuesday, April 08, 2008 Page 2 of 41

Q-6 Question against draft RFP II.A.19 Mission Success Determination, Investigation, and Corrective Actions, (B), (iv). Will contractor be paid for any portion of return costs in the event cargo is destroyed during reentry?

Mission The final RFP language would identify loss of the return cargo as a partial success and the final payment would be decremented accordingly. The Mission Success determination criteria will be updated and clarified in the final RFP.

Q-7 Pages 166 and 167 contain redundant requirements for flowdown of Small Business goals, independent assessment of goals, plans/structure for outreach and experience with subcontractors. Please clarify or delete redundancies.

Small Business There are two separate evaluations under the subfactor for small business. The first evaluation pertains to the offerors' plan for subcontracting with small businesses and the second evaluation pertains to participation by Small Disadvantaged Businesses (SDB) proposed by each offeror. Therefore, paragraph "b" of the Small Business Subcontracting section of the RFP refers to "other" information necessary to evaluate an offeror's small business plan while paragraph "b" on of the SDB Participation section of the RFP refers to "other" information necessary to evaluate an offeror's target for SDB participation.

Q-8 Numerous paragraphs refer to an IDD. However, the applicable documents in the SOW only refer to IRDs. Please clarify or make text consistently reference IDD or IRD.

Mission The Interface Definition Document (IDD) is a Contractor-provided Data Requirements Document (C3-1). The Interface Integration Requirements Document (IRD) (SSP 50808) is supplied in the online technical library. The references to each in the RFP are as intended.

Q-9 V.A.2.1.1.2 These sections reference a "demonstration" mission, but it is not clear what this mission is for other than the two COTS funded SAA bidders. Could NASA clarify in these sections, and elsewhere as appropriate, the expectations for bidders that are not conducting COTS mission demonstrations?

Demonstration Any CRS Contractor will be required to verify compliance with SSP 50808 by demonstration and the Contractor-provided /Integration IDD environments. This verification may be performed by conducting a flight to ISS.

Tuesday, April 08, 2008 Page 3 of 41

Q-10 VI.A.18 Small Business waiver option is unclear. Do Small Businesses get 10% price evaluation advantage AND lose 100 pts, or are they evaluated on a 900 point scale versus 1000 points for large businesses? Please clarify scoring and price evaluation impacts of the small business waiver provision.

Small Business Clause VI.A.6. Notice of Price Evaluation Adjustment for Small Disadvantaged Business Concerns (FAR 52.219-23), paragraph b, discusses the price "evaluation adjustment" that applies to SDBs. Paragraph c, of the same clause allows the SDB concern the option to "waive the adjustment". If the SDB offeror elects to "waive the adjustment" the particular SDB offeror is INELIGIBLE for the price evaluation factor adjustment but ELIGIBLE for the "evaluation credit" (points) associated with the SDB participation described in Section VII, Subfactor C. All offerors will be evaluated on a 1000-point scale.

Q-11 Please clarify exactly what is being competed in this RFP, i.e. what will be won by successful bidders?

Overall

From the RFP: The Contractor will "provide cargo resupply to the International Space Station, dispose of unneeded cargo, and to return cargo from the ISS back to NASA.... Contracts may include missions for pressurized or unpressurized delivery, disposal, return, or any combination thereof." This is the service NASA intends to procure with this contract. The annual need that NASA is seeking to have provided on those missions are identified in the sample task order provided as an attachment.

Q-12 Who is the Source Selection Authority (SSA)?

Overall The Source Selection Authority will be the NASA Associate Administrator for the Space Operations Mission Directorate.

Q-13 What advantage does a COTS demo contractor hold over other companies in competition for IDIQ status?

/Integration

Demonstration This is a full and open competition separate from the COTS Phase 1 activities. All offerors will be evaluated per the criteria identified in the RFP.

Tuesday, April 08, 2008 Page 4 of 41 Q-14 Please clarify if similar criteria will be used to identify/qualify ISS commercial resupply services providers as is currently used to qualify launch service providers under NLS. If so, what are the qualification criteria: how do contractors validate compliance to criteria; once criteria are met how do contractors bid on future IDIO launches; etc?

/Integration

Demonstration Similar criteria will not be applied. The services procured under this contract are not subject to full application of NPD 8610. The launch vehicle evaluations are only performed when the Contractor is using a new launch vehicle configuration. The launch vehicle technical assessment is only limited to the specific systems identified in the DRDs. These systems were selected because they have been the source of recent launch vehicle failures. In addition, the critical interfaces for this contract are related to the critical ISS and cargo interfaces rather than the payload interfaces defined on the NLS contract. The ISS interfaces are verified through compliance to SSP 50808, ISS COTS Interface Requirements Document. Cargo interfaces are verified through products provided for the specific cargo configuration for each mission.

O-15 Is the on-ramp only initiated by government solicitation?

Yes, NASA will initiate the On-Ramp synopsis if conditions warrant in accordance with the II.A.1 On-Ramp clause. **On-ramp**

Q-16 Does an on-ramp proposal need to include a demo mission similar to the COTS proposals?

No. **On-ramp**

II.A.5 (pg. 18): When / how often does NASA anticipate awarding the first task orders? **Q-17**

Revenue Stream

NASA intends to award task orders as close to the time of award of the basic contract(s) as possible.

Q-18 II.A.6 (pg. 21,22): 6.2; For a mission failure, will it be considered a default and will milestone payments be requested to be paid back to NASA? Or will just the final payment be forfeited by the Contractor and is not recoupable?

Mission Success

If the conditions of paragraph 19.2(C), of clause II.A19, Mission Success Determination, Investigation, and Corrective Action apply, the Government will pay no portion of the final payment; but prior commercial interim payments are not refunded to NASA.

Tuesday, April 08, 2008 Page 5 of 41 Q-19 II.A.6 (pg. 22): In the letter to all prospective offerors, dated Feb. 28, 2008 it was stated that NASA was interested in

comments back to provide five key milestones that NASA could use for payment criteria. Table C-1: Mission Payment Schedule, brackets two possible milestones. Is it correct to think five additional milestones could be added between

demonstration of berthing and final milestone of mission successfully completed?

Milestones NASA's intention was to receive industry input on payment milestones across the mission template that it considered

appropriate.

Q-20 2.3.3.2, (pg. 67): Mission Flight Procedures. A reference to crew procedures and flight rules is made. Is this an error,

as this contract is only for cargo?

Mission Integration No, NASA requires input to the NASA developed crew procedures for ISS CRS missions. These are needed to ensure the NASA crew properly interfaces with the Contractor's vehicle while it is attached to the ISS on orbit—Crew procedures will be required for any needed crew operation of the vehicle during the cargo resupply mission. Examples of this include hatch opening, any power or other vestibule connections, capture, and unpacking and packing interfaces. NASA will provide initial and final crew procedures for the contractor to review.

Q-21 2.3.3.3.2, (pg. 68): Mission Simulation Support. Will this requirement need to be costed in the proposal by the Contracting company or will NASA provide the simulation training?

Mission Integration Simulations are used by NASA and the Contractor's flight control teams to ensure that both teams are prepared for the missions, have communication protocols in place, and have plans to resolve anomalies that may occur on both sides of the interface (NASA or the Contractor's) while the Contractor's vehicle is at the ISS. The Contractor's support of these simulations needs to be costed in this proposal. The NASA costs for the simulations will be covered by NASA.

Tuesday, April 08, 2008 Page 6 of 41

Q-22 (g) Contract award, (pg. 40): It currently states that the Government intends to evaluate offers and award a contract without discussions with offerors. Could some form of discussion be provided back to the losing offeror, so they have a chance to improve before the next competition or it would seem that future competitive competitions could be compromised?

Overall "Discussions" are exchanges with offerors after establishment of the competitive range. Further information on discussions can be found at FAR 15.306(d). Clause 52.212-1, paragraph (l), provides information on post-award debriefings. Post-award debriefings are encouraged to be requested by all offerors.

Q-23 P2., Delivery and Return Template (pg. 176): What is meant by unpressurized upmass and pressurized upmass will be assumed to represent half of the upmass weight unless only unpressurized and pressurized upmass are proposed. What is this statement assuming is the other half of the weight, a crew, the vehicle, or what?

The RFP will be adjusted to state that the sub-CLIN pricing table and a weighted average of each sub-CLIN pricing table will be evaluated for price reasonableness in accordance with FAR 15.404.1. This will replace the statements upon which this question is based.

Q-24 Evaluation criteria need to specify that the cost proposal will be evaluated at a consistent level of risk/confidence. Request additional detail be provided in order to better understand the evaluation criteria.

Evaluation The price will be evaluated for reasonableness in accordance with FAR 15.404-1 as stated in the RFP.

Pricing

Q-25 Cost evaluation needs to specifically state that total cost evaluation will include all CLINs. Request additional detail be provided in order to better understand the evaluation criteria.

Pricing All CLINS will be evaluated for price reasonableness in accordance with the FAR 15.404-1 as stated in the RFP. For the purposes of evaluation of price and relative financial impact, CLIN 1 Standard Resupply Service prices are substantially more important than CLIN 2 Non-Standard Services prices and the CLIN 3 Special Task Assignments prices.

Tuesday, April 08, 2008 Page 7 of 41

Q-26 It appears that required ISS integration activities will not be funded by NASA. Is that the intent? If so, how might a CRS Contractor limit the extent of such activities and associated expenditures?

/Integration

Demonstration ISS Integration activities are not part of this contract but are a parallel effort. The Contractor should propose a way to meet the requirements for ISS integration in the most cost effective manner without impacting the overall safety of the on orbit ISS crew.

Q-27 The draft RFP requires certification of compliance (or not) with "Commercial Provider" act (e.g. >50% ownership by U.S. nationals) and Space Transportation Policy (e.g. made in U.S.A.). Is it NASA's intent for CRS Contractors to be fully compliant with such Act/Policy or will non-US based providers be eligible for a CRS Contract?

Foreign **Companies**

Yes, contractors are required to comply with the Commercial Space Act of 1998 at 41 U.S.C. 14701 et seq., and the U.S. Space Transportation Policy dated December 21, 2004. Additionally, contractors are required to comply with the Iran, North Korea, and Syria Nonproliferation Act (P.L. 106-178, as amended by P.L. 107-228 and P.L. 109-353). See the answer to Question 1 for eligibility of non-U.S. entities.

Q-28 Is it necessary, or consistent with commercial practices, to impose small business socio-economic goals on a **Commercial Resupply Service?**

Small Business Yes. FAR Part 12, Acquisition of Commercial Items, requires compliance with certain laws and Executive orders as applicable to the acquisition, regardless of its consistency with commercial practices. The requirements of FAR clause 52.219-9, Small Business Subcontracting Plan, Alternate II, implements the statutory requirements of 15 U.S.C. 637(d)(4), and details information required in regards to socio-economic goals.

Q-29 Will the price of these Non-Standard Services vary with the type of Standard Resupply Mission in CLIN 0001?

No. The Non-Standard Services, as currently planned, only apply to the launch vehicle and launch service. They are therefore **Pricing** insensitive to the type of resupply mission.

Tuesday, April 08, 2008 Page 8 of 41 Q-30 II.A.1 On-Ramp clause states that existing contractors will be able to submit proposals alongside new contractors during an on-ramp competition. Given the first-of-kind services involved, is there an opportunity for existing contractors to re-price the CLINs for the remainder of the contract period of performance?

Yes. If NASA issues a solicitation notice, new and existing providers will be allowed to submit proposals within the notice's stated response time. The existing offeror must meet the full proposal submission requirements of the solicitation, as revised. In the event the existing contractor's new proposal is not selected during the On-Ramp competition, the original basic contract will remain valid.

Q-31 II.A.2 Will this funding clause apply individually to each Task Order, or cumulatively at the Basic Contract level?

Revenue Stream Clause II.A.2, Limitation of Funds (Fixed-Price Contract) (NFS 1852.232-77) will apply at the contract level.

Q-32 II.A.5.3 Will electronic submission be acceptable in lieu of hard copies?

Overall The individual request for task order proposals will detail if the contracting officer will allow electronic submittal or hard copy.

Q-33 II.A.9 Please clarify the requirement to "...requiring delivery to multiple destinations or performance at multiple locations." This is confusing in the context of this procurement. Is this for return cargo? Delivered cargo? Does this affect the Contractor's ability to unilaterally select or change launch sites or integration sites?

Place of Performance

The place of performance will be identified by the contractor in response to a request for task order proposal. The task order will then identify place of performance as proposed. For CLIN 0001, Standard Resupply Service, place of performance would be the launch site.

Q-34 II.A.10 Please clarify the intent of this change event.

Changes The intent of this clause is to allow NASA to issue unilateral change orders to the contract.

Tuesday, April 08, 2008 Page 9 of 41

Q-35 II.A.11 Does this imply that a Contractor would have to reperform a Resupply Mission in the event of Mission Failure.? It appears that this clause conflicts with II.A.19 "Mission Success Determination, Investigation and Corrective Action."

Mission Success II.A.11, Inspection of Services-Fixed Price (FAR 52.246-4) Aug 1996), paragraph (e), may require the contractor to reperform if services do not conform to the contract. If the conditions of paragraph 19.2(C), of clause II.A.19, Mission Success Determination, Investigation, and Corrective Action apply, then NASA cannot ask for reperformance given that services conform to contract criteria of a "Mission Failure"; and the resulting consequence is that the Government will pay no portion of the final payment.

Q-36 II.A.15 It's not clear from the clause who defines the place of performance. Further, what constitutes the place of performance? Does it include launch site or integration site? Clarify whether the place of performance will be defined by NASA or the contractor. Please clarify meaning of place of performance.

Place of Performance

The place of performance will be identified by the contractor in response to a request for task order proposal. The task order will then identify place of performance as proposed. For CLIN 0001, Standard Resupply Service, place of performance would be the launch site.

Q-37 II.A.19 Is the mission a success if the cargo is NOT in the same pre-launch/packed configuration, but is undamaged? Should such criteria also be established for Partial Mission Success and a Failed Mission?

Mission Success It is often difficult to determine "undamaged" when assessing hardware on orbit. The on orbit crew does not have the ability to fully test hardware and assess its condition. NASA's purpose in picking mission success criteria that were easily identifiable was to minimize the negotiation period and easily assess the criteria for mission success. Yet, NASA appreciates the comment and will re-evaluate the mission success criteria.

Q-38 II.A.19.1.A.iii Is this applicable to an Unpressurized cargo mission?

Mission This particular mission success criteria is only applicable to pressurized cargo. For a purely unpressurized cargo mission only Clause II.A.19.1.A.iv would apply.

Tuesday, April 08, 2008 Page 10 of 41

Q-39 II.A.19.1.A.iv Please clarify intent of "upon de-integration" (i.e. at the time of removal of cargo from orbital vehicle?)

Mission The term de-integration in this context describes the process for unpacking and "de-integrating" cargo from the Contractor's vehicle.

Q-40 II.A.20.2 First sentence states that task orders will contain annual demand amounts. This appears to conflict with CLIN 001 structure of where a Task Order is award on a single launch/delivery event. Please clarify.

RevenueThe first sentence in Clause II.A.20.2 will be changed to "Task orders issued to Contractors are intended to fulfill annual demand requirements" (Please see response to C-1). The pricing structure of CLIN 001 allows pricing for task orders to be issued at the minimum kg to the maximum kg as detailed in each sub-CLIN. As such, the task orders could be issued to support an annual demand or a lesser amount.

Q-41 II.A.20.3 Table C-9 column 1 title is "Months Prior to Delivery Date - First Day to Last Day". This is somewhat confusing - does this mean that for the period ATP thru L-13 that L-13 is calculated as 13 months prior to the last day of the 90 day cargo delivery window?

Mission
NASA will clarify the table in the Final RFP. The intent of the table is to say that the 90 window is in place from ATP through the Mission Integration Review. Then the delivery window is progressively tightened at the key reviews stated in the SOW. NASA has allowed the Contractor the flexibility to propose the timing of these reviews in their Mission Integration and Operations Management Plan within the constraints of the SOW.

Q-42 V.A.2.3.1 Where will these meetings be held?

Mission NASA is providing the Contractor the flexibility to propose the location of the mission integration meetings. The Contractor needs to understand the purpose of the mission integration meetings and can propose them to be at NASA facilities if it provides an overall benefit to the integration activities.

Tuesday, April 08, 2008 Page 11 of 41

Q-43 V.A.2.3.2 Does "flight product development" mean those data deliverables under DRLC5-1 and C6-2?

Mission Integration

Yes. The DRDs will be re-written in the final RFP to better communicate that the Contractor will be reviewing NASA products and ensuring that they have the right technical references and directions. This will be critical to the Contractor to ensure the crew has the reference material available to properly operate the Contractor's equipment and perform activities related to the resupply mission.

Q-44 V.A.2.3.3 Is this referring to the ISS Crew?

Mission Integration

Yes. This is referring to procedures or processes that will ultimately be used by the ISS crew.

Q-45 V.A.2.3.3 Will NASA supply cargo operating procedures and crew training plans for NASA supplied cargo?

Mission Integration

Yes.

Q-46 V.A.2.3.3.1.1 Please clarify what interface.

Mission Integration

This particular section is addressing the communication security requirements for the interface between the Contractor and NASA control centers. The final RFP will clarify that.

Q-47 V.A.2.3.3.2 Does this requirement pertain to a crewed spacecraft mission?

Mission Integration

It refers to all CRS missions since the NASA flight director will lead joint operations within the Approach Ellipsoid. The Contractor is always responsible for the operation of their vehicle. Yet, as is the practice in all joint operational activities, a hierarchy of responsibility needs to be established to ensure smooth and safe operations near the manned ISS vehicle. The NASA flight director is the lead of this joint operations activity. This is standard protocol for all of the visiting vehicle joint operations.

Tuesday, April 08, 2008 Page 12 of 41

Q-48 V.A.2.3.3.4 Is there a minimum number of Contractor personnel required?

Mission Integration No, the Contractor needs to propose the appropriate number for personnel needed to maintain their operations, interface with the NASA mission control center and support any on orbit anomalies during joint operations.

Q-49 V.A.2.3.3.4 Is 24 hr coverage required at JSC, or can this be accomplished at Contractor MCC?

Mission Integration It can be accomplished at the Contractor's MCC. Typically, it is helpful to have some of the Contractor's control team at Houston MCC for the first few flights to ensure that any issues with the vehicle or the ISS are communicated quickly between the teams. But the Contractor should propose the method of coverage that they think best supports the mission.

Q-50 V.A.2.3.3.4 Please clarify what is meant by "NASA will be responsible for on-orbit operations once within the approach ellipsoid."

Mission Integration The Contractor is always responsible for the operation of their vehicle. Yet, as is the practice in all joint operational activities, a hierarchy of responsibility needs to be established to ensure smooth and safe operations near the manned ISS vehicle. The NASA flight director is the lead of this joint operations activity. This is standard protocol for all of the visiting vehicle joint operations.

Q-51 V.A.2.4.5 What is non-NASA cargo? Please Define.

Mission Integration NASA is allowing non NASA cargo to be flown as secondary payloads on NASA missions. The contractor could fly their own commercial cargo on these flights as long as the cargo requirements that NASA has procured are provided.

Tuesday, April 08, 2008 Page 13 of 41

Q-52 V.A.2.5.2.2 Will a Contractor's successful COTS Phase 1 Demonstration satisfy this requirement?

Insight & approval

The COTS success Phase 1 demo itself does not satisfy the requirement. The work preceding the demo, including the baselined integrated hazard reports, will meet the requirement for the Prox operations and ISS berthed safety assessments. The following section of the RFP states the requirements for follow on missions. 'For subsequent missions, the baselined flight safety assessments shall be evaluated and updated as required to incorporate vehicle and operational changes. Updated safety assessments shall be approved by the ISSP in accordance with SSP 30599. If no updates are warranted, the ISS SRP will be sent confirmation from the Contractor that the existing flight safety assessments remains applicable.'

Q-53 V.A.2.5.5.2.1 What is meant by an independent party?

Insight & approval

Independent party means the software assurance organization must have a separate reporting path from the software development organization.

O-54 V.C.C2-2 Can this be combined with the Work Plan (C1-8)?

Mission Integration

Yes, this could be combined with the workplan. The intent of having it separate was to allow the Contractor to have the initial work plan be managed separately from integrated schedules.

Q-55 VI.A.17 Is this a correct reference to Attachment B?

Pricing The Final RFP will reflect a change in reference to I.A.4, Contract Line Item Numbers (CLINs)

Q-56 I.A.3: The guaranteed minimum is the negotiated value of one mission to the ISS. The Mission Payment Schedule (Table C-1) similarly refers to "Standard Mission Price". Our interpretation is that the term "Mission" as used in I.A.3 and C-1 refers to a single cargo delivery to ISS regardless of the size, i.e. each cargo delivery would be regarded as a separate mission. Is this interpretation correct?

Revenue Stream

Your interpretation is correct. Of note, a Standard Resupply Services Task Order may include several missions which would require a corresponding work plan for each mission.

Tuesday, April 08, 2008 Page 14 of 41

Q-57 Clauses III. and IV.: The Buy American Act is not applicable to this procurement. Is this directed to the entire mission or specific flight hardware, operations, and/or launch site?

Foreign Companies The Buy American Act does not apply to any part of the contract; however, NASA must comply with the U.S. Space Transportation Policy that requires "United States Government payloads shall be launched on space launch vehicles manufactured in the United States." See the answer to Question 1 for eligibility of non-U.S. entities.

Q-58 Our review of the DRFP indicates that the solicitation is for ISS cargo delivery, return, and disposal only. Our interpretation is that Capability D in the COTS demonstration programs is not a requirement of this ISS resupply procurement, including future "On-Ramps" per Clause II.A.1. Is our interpretation correct?

Overall Yes. The requirements on this contract do not contain the requirements that NASA would have for a crewed mission.

Q-59 DRFP Clause II.A.6, Table C-1: Per the Mission Payment Schedule a contractor can receive up to 20% of a standard mission price prior to completion of an ISS demonstration. Our interpretation is that this milestone payment could be for activity not directly associated with an actual cargo delivery. Is our interpretation correct? If so, why is a demonstration included in the ISS Commercial Resupply Services acquisition - a recurring cargo resupply contract?

Milestones

A demonstration is not part of the services procured under the ISS CRS contract. However, before NASA will allow any vehicle to berth with the ISS, the contractor must show that the vehicle meets the ISS interface requirements. No more than 20% of the standard mission price will be paid prior to demonstrating that the vehicle satisfies the ISS interface requirements.

Tuesday, April 08, 2008 Page 15 of 41

Q-60 Will there be flight demonstrations required? If so, can the first demonstration mission be the first cargo mission i.e. similar to the ESA ATV mission.

Demonstration /Integration

No. NASA has required that only ISS Integration needs to be complete prior to the first cargo mission. A certain amount of vehicle flight performance will have be validated but NASA has not dictated the method for that validation. NASA has given the Contractor the flexibility to propose the plan that best matches their resupply mission strategy. That plan can include flight validation through the use of previously flown prox ops capabilities, vehicles, robotic capabilities; validation through a joint demonstration and resupply mission similar to what is currently being performed by the ATV and proposed for the HTV; or by separate demonstration and resupply missions.

Q-61 What are the requirements of the demonstration mission i.e. Capability A, B, or C or all.

Demonstration /Integration

Demonstration NASA has given industry the maximum flexibility to propose the plan that bests matches their resupply mission strategy.

Q-62 If we are not a funded Phase 1 COTS participant, will full funding for the demonstration at proposal submission be an evaluation or entrance criteria?

Evaluation

Yes, the RFP outlines the evaluation criteria for the offeror's proposal. NASA will evaluate the mission suitability of the offeror's proposed approach and their ability to meet the requirements of the contract. NASA will also evaluate the cost that the offeror will be proposing to provide the resupply mission services. Mission suitability will be more important than cost. NASA will evaluate the proposals and based on the best value to NASA will award a basic contract and task orders.

Q-63 Is NASA considering more than 1 firm mission? How many awards is NASA considering?

Revenue Stream This question will be considered in the final RFP.

Q-64 If we are not a funded Phase 1 COTS participant are we at a disadvantage entering the ISS CRS?

Evaluation This is a full and open competition. All offerors will be evaluated per the criteria identified in the RFP. The RFP does not require a funded SAA.

Tuesday, April 08, 2008 Page 16 of 41

Q-65 In the ISS CRS bid can the past performance of our team mates and major subcontractors be considered?

Evaluation Yes. "Significant Subcontractor(s)" as detailed in clause VI.A.18, under the General Instructions, will be considered in the evaluation of past performance.

Q-66 Are there any evaluation criteria or FAR procurement requirements in the ISS CRS that would favor a major traditional aerospace company as a prime over a smaller business?

EvaluationNo. Under this full and open competitive procurement all offerors will be evaluated in accordance with the procedures in Section VII Evaluation. The procedures were developed to provide maximum competition and a best value decision for NASA.

Q-67 Is there any evaluation criteria or FAR procurement requirements that will prevent a small business for bidding?

Evaluation No. All offerors will be evaluated in accordance with the procedures in Section VII Evaluation, while meeting the terms and conditions of the other requirements of the contract. NASA will not comment or speculate on how it will evaluate or score specific scenarios.

Q-68 In the evaluation criteria, how will NASA evaluate (score) an offer that uses an existing launch vehicle (i.e., EELV) versus one that requires some development but offers lower cost. Will NASA evaluate (score) a domestic launch vehicle as equal to a launch vehicle containing significant foreign content in light of NASA concerns with ITAR risks, insight/oversight, and foreign supply reliance/availability.

Evaluation No. All offerors will be evaluated in accordance with the procedures in Section VII Evaluation, while meeting the terms and conditions of the other requirements of the contract. NASA will not comment or speculate on how it will evaluate or score specific scenarios.

Tuesday, April 08, 2008 Page 17 of 41

O-69 In the evaluation criteria, how will NASA evaluate (score) a cargo solution that has multiple market utility i.e., a launch vehicle that can service other NASA needs NASA science mission needs?

All offerors will be evaluated in accordance with the procedures in the RFP while meeting the terms and conditions of the **Evaluation** other requirements of the contract. NASA will not comment or speculate on how it will evaluate or score specific scenarios.

Q-70 How will cargo be handled when delivered to ISS? Is this covered in another contract? Concern is EVA will be limited after 2010.

Mission NASA has given industry the maximum flexibility to propose either a robotic or EVA solution to unpressurized cargo removal. However, the Contractor must meet NASA's requirements for the solution they propose as identified in SSP 50808. Integration

Q-71 Letter said that ISS Integration would be fully addressed at this meeting. It has not been addressed any more than the DRFP. Why?

/Integration

Demonstration NASA's intent for slide 44 in the Pre-Proposal conference charts was to fully address ISS Integration. ISS integration was defined and the process for initiating the process for ISS integration was defined. Since ISS integration is not performed under this contract, NASA felt that further explanation of the ISS integration process would convey to industry that the CRS contract was directly paying for its performance. Yet, NASA is available to address any questions regarding ISS Integration and the process that industry needs to go through to complete it. Industry is welcome to contact Commercial Crew and Cargo Program Office to set up discussions and the ISS Program will support any discussions needed to clarify the ISS Integration process.

 \mathbf{O} -72 Please describe the "Security Review: on page 34 of the presentation.

Overall Page 34 of the preproposal conference does not refer to a "Security Review".

Tuesday, April 08, 2008 Page 18 of 41

Q-73 NASA Insight will be limited to "certain tasks and milestones." Please explain

Insight & approval

The business entities to which NASA requires insight are delineated in Clause II.A.18.1. The technical, production and operational areas to which NASA requires insight are delineated in Clause II.A.18.3. The tasks required under SOW Sections 2.5 and 2.6 and the DRD's will provide insight to NASA as well.

Q-74 Please describe in more detail (i.e., examples) of NASA's deviation to the Limited Waiver of Liability for ISS. How was this provision modified?

Cross-waiver

For purposes of the final RFP, NASA will update standard NFS clause 1852.228-76 (1994) entitled "Cross-Waiver of Liability for Space Station Activities" to be consistent with the current 14 CFR 1266.102 "Cross-waiver of liability for agreements for activities related to the International Space Station." The cross-waiver clause provided at the pre-proposal conference modified the standard NFS clause by adding paragraph (d). What appeared as paragraph (d) will instead be a separate stand alone provision in the final RFP. Paragraph (d) is the only part of the cross-waiver clause that addresses the relationship between NASA and the contractor. Paragraph (d) provides that NASA will not assert any claims for damage to, loss of, or loss of use of any Space Station property belonging to NASA arising from activities during "Protected Space Operations" that may occur during the performance of this contract. Paragraph (d) also provides that NASA's waiver of liability regarding Space Station property during Protected Space Operations would not apply to the extent recovery is available under the contractor's Federal Aviation Administration license or permit. Paragraph (d) also will provide that the contractor will not assert any claims against NASA for damage to, loss of, or loss of use of any contractor property arising from activities during "Protected Space Operations" that may occur during the performance of this contract.

Q-75 Did the speaker (John Moore) that presented the pricing charts state that it is the Government's expectation that most responders will be interested in cargo supply rather than cargo supply and return, or cargo supply and disposal? If yes, how does the Government anticipate downmass will be provided to keep the mass balance balanced?

Pricing

The discussion of cargo return and disposal during the Pre-Proposal Conference was intended to highlight the flexibility offerors have in pricing their service and to highlight different approaches that would be responsive to this RFP. For example, an offeror could offer to provide upmass and disposal without return.

Tuesday, April 08, 2008 Page 19 of 41

Q-76 What is the definition of "space vehicle" in Minimum Requirement?

Foreign Companies

The U.S. Space Transportation Policy requires that "United States Government payloads shall be launched on space vehicles manufactured in the United States." Interpretation of this provision is the responsibility of the White House Office of Science and Technology Policy (OSTP). Historically, the domestic manufacturing requirement has been interpreted to apply to launch vehicles and not payloads. NASA has not consulted with OSTP to evaluate a transfer vehicle under the policy. NASA would seek to consult with OSTP about the application of the policy requirement to any specific proposal.

Q-77 Can NASA accept a foreign vehicle (like ATV, HTV) with U.S. Launch Vehicle?

Foreign Companies

The Commercial Space Act of 1998 (codified at 41 U.S.C. 14701 et seq.), the Iran, North Korea, and Syria Nonproliferation Act (P.L. 106-178, as amended by P.L. 107-228 and P.L. 109-353), and the U.S. Space Transportation Policy dated December 21, 2004 place limitations on foreign participation. The Commercial Space Act of 1998 requires the prime contractor for ISS CRS be a United States commercial provider as defined in 41 U.S.C. 14701. Paragraph 1.1 in section IV.A.1 of the draft RFP contains the statutory definition of a United States commercial provider. The Iran, North Korea, and Syria Nonproliferation Act prohibits NASA from making payments to the Russian Federal Space Agency, any organization or entity under the jurisdiction or control of the Russian Federal Space Agency, or any other organization, entity, or element of the Government of Russian in connection with the International Space Station after December 31, 2011. Paragraph 1.3 in section IV.A.1 of the draft RFP contains the statutory definition of the term "organization or entity under the jurisdiction or control of the Russian Federal Space Agency." NASA has applied the restrictions in this Act to include funding of Russian entities via NASA contractors, which includes their subcontractors. The U.S. Space Transportation Policy requires that "United States Government payloads shall be launched on space vehicles manufactured in the United States." Interpretation of this provision is the responsibility of the White House Office of Science and Technology Policy (OSTP). Historically, the domestic manufacturing requirement has been interpreted to apply to launch vehicles and not payloads. NASA has not consulted with OSTP to evaluate a transfer vehicle under the policy. NASA would seek to consult with OSTP about the application of the policy requirement to any specific proposal.

Q-78 Clarify that pricing provided by contractors in the pricing schedule will be considered Not to Exceed pricing for future task order bids

Pricing Yes, prices in the contract schedule are not-to-exceed prices per clause II.A.5, TASK ORDERING PROCEDURES.

Tuesday, April 08, 2008 Page 20 of 41

O-79 Clarify that the demonstration activity is not precluded from also carrying payload

/Integration

Demonstration Yes, the demonstration activity is not precluded from also carrying a payload as long as ISS Integration is complete. NASA has given the Contractor the flexibility to propose the plan that best matches their resupply mission strategy. That plan can include flight validation through the use of previously flown prox ops capabilities, vehicles, robotic capabilities; validation through a joint demonstration and resupply mission similar to what is currently being performed by the ATV and proposed for the HTV; or by separate demonstration and resupply missions.

Q-80 Clarify contractor's access to the first 20% of a mission value. Clarify minimum milestone achievement requirements and address access requirements to this 20% for task orders that include payload for multiple missions

NASA has required that only ISS Integration needs to be complete prior to the first cargo mission. The Contractor is limited Milestones to 20% of the mission price until ISS integration is complete.

Q-81 Should price tables be normalized to Jan 2008 dollars?

Pricing The pricing should be proposed in dollars which reflect the year in which the service will be performed. Example, a 2010 launch should be priced in 2010 dollars.

Q-82 Is there a Lien for each milestone?? Just for THAT milestone payment in case THAT deliverable is later deemed unacceptable? (I thought they were "financial milestones").

Milestones

No, the lien would apply to all work in process. Pursuant to FAR 32.202-4, Security for Government Financing, the Government is required to obtain adequate security for Government financing. Clause II.A.3 states that "Adequate security for payments made under this contract shall be required in the form of a preferred creditor's lien. The Contractor shall grant NASA a preferred creditor's lien i.e., a first lien paramount to all other liens against all work in process sufficient to recompense NASA for all monies advanced under this contract should the Contractor's performance prove to be materially unsatisfactory." The Contracting Officer may determine the Contractor's financial condition to be adequate security, provided the Contractor agrees to provide additional security should that financial condition become inadequate as security. If a lien is required, it would be against all work, not against milestones.

Tuesday, April 08, 2008 Page 21 of 41 Q-83 IRD should be an "Applicable Document", since compliance is mandatory for ISS approach to occur. The spacecraftspecific/ISS ICD should also be Applicable.

/Integration

Demonstration The ISS COTS Interface Requirements Document will be made an applicable document. It references the vehicle specific interface control documents.

Q-84 To provide NASA with an understanding of the Contractor's launch vehicle environments (launch, on-orbit, and landing) so that the Government can perform end item certification on individual cargo/payload items to ensure survivability. These environments will be known prior to completion of Phase 1/ISS demonstration and should be provided only for delta environment or baseline changes but provides no benefit as requirement for every mission

Mission Integration

The RFP requirements are independent of any outside activities including COTS Phase 1. Because NASA will not control the configuration of the vehicle, the language in the contract allows the Contractor to bring in a new configuration and the corresponding environments at the Vehicle Baseline Review. This was written to allow the Contractor the flexibility to upgrade the vehicle as required. The final RFP will further clarify that if there aren't any changes from previous missions the contract allows the Contractor to identify that and the number and size of the deliverables would be reduced.

Q-85 Does "Launch Vehicle" data pertain to the launch vehicle, the transfer spacecraft or both?

Overall Launch vehicle pertains to the vehicle that provides sufficient velocity to the orbital vehicle to achieve orbit. Orbital vehicle is the vehicle that berths with the ISS. The RFP will refer to "both" as either "the vehicle" or "launch and orbital vehicle." This is a definition for the technical areas of the RFP, such as the Statement of Work. It shall not be construed to define launch vehicle in the areas related to Representations and Certifications in Section IV.

Q-86 Milestones should correspond to significant technical/business events, or are they "financing milestones", as described during the Industry Day briefing?

Yes, milestones should correspond to technical/business events. Payments are financing payments. Milestones

Tuesday, April 08, 2008 Page 22 of 41 Q-87 Excel 2000 for financial templates?

Pricing The final RFP will require templates in Excel 2003, not Excel 2000.

Q-88 Please elaborate on how "significant subcontractors" are defined. >\$500k/yr? What if it is unclear whether the cost will exceed \$500k/yr? What if initial costs may exceed this threshold but probably will not in the outyears?

Small Business The definition of "Significant Subcontractor" will be changed in the RFP to a "Subcontractor who is likely to exceed \$10 million worth of work over the duration of the contract".

Q-89 Requesting clarification as to whom is required to be processed through the Personal data verification (PIV) procedure

Overall

Badges are issued to all individuals who require physical or logical access to designated NASA resources for a period of greater than 179 days. Non-NASA Temporary Badges are provided when access of less than 179 days within a year is required. Visitor and Temporary badges are issued on an as-needed basis for appropriate access to NASA facilities. See NASA Interim Directive (NPR) 1600.1.

Q-90 "Service contractors shall provide quarterly reports specifying lost time frequency rate, number of lost-time injuries, exposure, and accident/incident dollar losses as specified in the contract schedule." Quarterly reports seem excessive where the data can be provide on an annual or semi-annual basis.

Insight &Since data is gathered continuously, collecting the data into a quarterly report is not considered excessive. Such frequency allows for timely notice of trends and capturing of best practices and lessons learned to promote safety for both NASA and its contractors.

Tuesday, April 08, 2008 Page 23 of 41

Q-91 "The contactor shall allow NASA attendance at flight hardware acceptance reviews and make available ALL documentation associated with those reviews." This level of oversight is inconsistent with a low-cost commercial cargo delivery service.

Insight & approval

The intent of this statement is to allow NASA to review any documentation presented at these reviews. Further, the intent of the statement is to permit the attendance of a limited number of NASA S&MA personnel at the review.

Q-92 NASA STD 8739.8 as tailored applies under the COTS Phase I development. Consistent application should apply under the COTS Phase II services agreement to avoid required redesign under pretailored guidelines.

Insight & approval

Thank you. NASA will take that comment under consideration.

Q-93 The statement that the lien applies against "all work in process" is vague and should be expressly limited to work under the COTS program.

Milestones

The lien would apply to all work in process under the ISS CRS contract. Pursuant to FAR 32.202-4, Security for Government Financing, the Government is required to obtain adequate security for Government financing. The Contracting Officer may determine the Contractor's financial condition to be adequate security, provided the Contractor agrees to provide additional security should that financial condition become inadequate as security. Clause II.A.3 states that "Adequate security for payments made under this contract shall be required in the form of a preferred creditor's lien. The Contractor shall grant NASA a preferred creditor's lien i.e., a first lien paramount to all other liens against all work in process sufficient to recompense NASA for all monies advanced under this contract should the Contractor's performance prove to be materially unsatisfactory."

Tuesday, April 08, 2008 Page 24 of 41

Q-94 Pursuant to the definition of "termination for cause" provided in the draft RFP, the Government may terminate the IDIQ contract if the contractor "fails to provide the Government, upon request, with adequate assurances of future performance." This condition is unduly ambiguous. The agency should consider providing a more explicit recitation of what constitutes "adequate assurances of future performance."

Revenue Stream This is the standard term for both Government and Commercial contracts. Whether assurances are adequate depends on the particular contract situation.

Q-95 Section (a) ("NAICS code and small business size standard") of the "Instructions to Offerors" provides that the NAICS code and small business size standard for this acquisition appear in Block 10 of the solicitation cover sheet (SF 1449). Accordingly, the acquisition is "unrestricted" for a small business with fewer than 1,500 employees. Section (a) of the Instructions to Offerors also states that "the small business size standard for a concern which submits an offer in its own name, but which proposes to furnish an item which it did not itself manufacture, is 500 employees." Given that this procurement is to furnish a service(s), rather than "furnish an item," it is not apparent what this provision means and why it would be appropriate. Critically, the provision should not mean that an entity that submits an offer, and relies upon any item as part of its service that is manufactured by another entity, is relegated to a 500 employee threshold to maintain status as a small business. We are seeking clarification as to the intent of this requirement

Small Business The second sentence in paragraph (a) of clause, VII. Instruction to Offerors-Commercial Items (FAR 52.212-1)(NOV 2007), will be deleted to clarify the size standard applicability.

C-1 The risk of investing considerable company funds to develop a capability with only a minimal guaranteed order for return on investment is a bigger hurdle. The minimum guaranteed order must be increased significantly in order for potential service providers to be able to close their business cases.

Revenue Stream The final RFP will increase the minimum guaranteed order.

C-2

Cargo Accommodation Definition To provide a common basis for evaluation, the RFP should define the standard accommodations, i.e. those that are to be provided as part of the fixed service price. Our experience in previous programs is that these standard accommodations should be based on volume and not mass. Cost per unit mass can be calculated after the fact, but actual mission manifesting will always be based on placement of standard packaging of the cargo. Mission manifesting is a very complex process, and the actual task orders (and the sample task order) will have to be very detailed and specific. An Interface Definition Document (IDD) should specify the standard service limits for standard service parameters (mass, cg, physical interface, etc). For this RFP, NASA should make some simplifying assumptions to provide a common baseline for proposal evaluation. For proposal purposes, the internal cargo packaging standard could be the single middeck locker equivalent (MLE) stowage bag weighing X kg. The proposal pricing assumption would be that the customer delivers these prepackaged single MLE bags per the service provider's mission integration template. The standard service price would be established at \$X per MLE, tiered by number of MLEs per mission or per year. External cargo could be specified in the same way, with the IDD defining the standard interface, dimension and mass property limits that the external cargo elements must meet. Additionally, the FDD should establish the environmental conditions that the cargo must tolerate (temperature, vibration, loads, etc). The standard service price assumes that the cargo can tolerate the environment without any special testing or analysis. Any required special analysis or testing would be provided as an optional or unique service. The IDD should also establish standards for optional services, and document how much of the cargo manifest on a given mission can be provided more than standard services. These services would be offered as a fixed price per MLE and documented in the CLIN 2 table. Those services would include: power, data, cooling, special handling or special packaging (as an optional service, the service provider could provide the bags and boxes and pack loose cargo). The IDD would specify how much of each service would be provided for the fixed optional service price (e.g., 100w 110 v ac, 100 w forced air cooling, etc.). The IDD should establish the parameters of and limits on how many late stow or early access payloads are to be accommodated under the standard service. There will always be some mission requirements that go beyond fixed price standard and optional service parameters, and these unique services should be negotiated as separate contract changes as they are defined.

Mission Integration

NASA wanted the Contractor to be able focus to on the key drivers of the resupply mission. NASA recognizes that beyond gross definitions of cargo capability, i.e. internal and external, the vehicle's capabilities are not driven by the packing accommodations. For example, a CTB design does not drive the cargo vehicle design. NASA does recognize interfaces are critical which is why the key interface requirements for active cargo power, and packing accommodations, including environments for the cargo, are identified in the Cargo IRD. By limiting the cargo information in the proposal requirements, NASA is hoping the Contractor can focus on the critical aspects of delivery including gross cargo capability, launch vehicle capability, and overall range of cargo resupply service.

Tuesday, April 08, 2008 Page 26 of 41

C-3 Open Ended Government Insight Activity We understand that NASA must retain full safety authority over ISS visiting vehicles, and that CRS providers must comply with all requirements of the ISS payload safety processes. However, in a commercial services environment wherein the CRS providers bear all of the mission success risk, NASA mission success insight activities should be limited to DRD review and participation in an advisory capacity in selected mission integration and readiness reviews.

Insight & approval

NASA understands industry's concerns. Yet, NASA understands the documented risks with new launch vehicles. Therefore NASA feels an appropriate assessment of the technical risk of a new launch vehicle makes business sense with their limited budget and ability to finance replacement cargo. These assessments are only limited to systems that have recently contributed to failures in the launch vehicle industry. If a proven launch vehicle is being used, then these assessments will not be required. NASA is evaluating its limited insight into production anomalies.

C-4 II.A.17.1 We would recommend that the right for the government to terminate all or part of the contract as a result of the government's technical assessment should include the opportunity of the CRS provider to respond to the government assessment before any termination action is taken.

Revenue Stream

The contractor will have an opportunity to respond to the Government when allowed to provide for "adequate assurances" prior to a Termination for Cause being exercised.

C-5 II.A.17.3 Government refusal to allow the vehicle into Approach Ellipsoid should not automatically be seen as a delay caused by the contractor. Mission success parameters are agreed to during the Mission Integration Review at L-13 Months and Flight Readiness is also agreed to by both the government and the contractor. If the delay is the result of operational factors beyond control of the CRS provider, the CRS provider should not be unduly penalized.

Mission Success

Thank you. NASA will take that comment under consideration.

Tuesday, April 08, 2008 Page 27 of 41

C-6 II.A.19.A.i Telemetry outside of the nominal parameters or lack of data should not automatically constitute a partial success or failure scenario. All sources of data (NASA telemetry, CRS provider telemetry, post delivery analysis, crew observations, etc.) should be used to determine IDD compliance.

Mission Success Thank you. NASA will take that comment under consideration.

C-7 II.A.19.A.iii Although attempts are made to maintain hardware in its pre-launch stowed configuration, some shifting can occur without damage to the cargo, and as such, shifting which results in no damage should not constitute a partial success or failure scenario.

Mission Success It is often difficult to determine "undamaged" when assessing hardware on orbit. The on orbit crew does not have the ability to fully test hardware and assess its condition. NASA's purpose in picking mission success criteria that were easily identifiable was to minimize the negotiation period and easily assess the criteria for mission success. Yet, NASA appreciates the comment and has changed the mission success criteria in the Final RFP.

C-8 II.A.19.A Revise the statements to apply only if vendor hardware is at fault for damaging the hardware.

Mission Success Thank you. NASA will take that comment under consideration.

C-9 Our interpretation of the draft RFP is that NASA is only making a "one flight only" commitment to each ISS CRS Contract Award. If that is the Government's intent, we believe it will reduce the number of potential bidders. For those bidders that did not receive a Space Act Agreement (SAA) under COTS, a business case to justify an investment in a vehicle capable of berthing or docking with the ISS that has only a one flight firm commitment must be more dependent on developing other existing or emerging markets. NASA may find that only the SAA bidders can close a business case in this scenario. Given the bidders are competitively evaluated on price, we believe that NASA should consider awarding at least 3 cargo delivery flights where the negotiated firm fixed price would be derived from the competitive bid. Recognizing that this approach might reduce the Government's total potential IDIQ awards, it would stimulate stronger competition at the outset.

Revenue Stream The final RFP will increase the minimum guaranteed order.

Tuesday, April 08, 2008 Page 28 of 41

C-10

1. Limitation of payments prior to demonstration of ISS berthing. (Reference Table C-1 Note #2). While we understand the desire of the government to limit its risk associated with the advanced payments for an undemonstrated system, this risk is caused by the even more important need to offer practical COTS services shortly after demonstration. Therefore, we deem it unavoidable given the timing of this procurement. This provision would require extended Contractor funding of all operational missions ordered before the demonstration flight which would exceed practical working capital availability. We believe the government's concerns can be addressed by associating the milestone payments with criteria that assure the government that the contractor is pursuing the program with diligence and competence, and with the inclusion of a termination for convenience clause.

Revenue Stream Thank you. NASA will take that comment under consideration.

C-11

25% Payment holdback. We do not believe that such a large holdback will cause any increase in diligence or motivation on the part of the contractor.

Revenue Stream

Thank you. NASA will take that comment under consideration.

C-12

3. Cargo and mission success. (Reference Section II.A.19) We believe that mission success should be based on a combination of mission telemetry and closeout data and functionality and usability of the cargo. Since these items may be very mission-unique, we propose that detailed mission success criteria, including the percentage holdback, be part of the Task Order negotiation. We believe that the master IDIQ contract should establish as preconditions for determination of partial mission success a) verifiable accidence of launch loads or environments and b) substantive loss of cargo functionality, and leave the specifics to each Task Order. We also suggest that the government may want to be able to modulate missions success in a more continuous form than the 0-50%-100% indicated by Table C-8.

Mission Success

The final RFP will have a modified mission success clause.

Tuesday, April 08, 2008 Page 29 of 41

C-13 4. Delay in determination of mission success. (Reference Section II.A.19.3 (B)) In order to minimize the Contractor's cost of money, and therefore reduce the price to NASA, we suggest that NASA perform a preliminary determination of mission success within a short time (e.g. 1 month) of the mission allowing partial payment or all of the holdback, and that a reachback provision allowing NASA to recover the appropriate amount from the paid holdback if further data shows the initial determination of mission success to be incorrect. Mission The final RFP will have a modified mission success clause. Success C-14 I.A.4 Recommend that NASA consider NTE pricing for IDIQ contract awards, as these commercial services offered and procured are of a 'first-of-kind' and as such involve more uncertainty for both the Government and the Contractor. Negotiated Task Orders would still be awarded on a Firm Fixed Price (FFP) basis, however. **Pricing** Contractors are allowed the flexibility to propose a not to exceed price in accordance with paragraph 5.4, of clause II.A.5, TASK ORDERING PROCEDURES. Any Contractor proposed reduction will be applicable to the current Cargo Resupply Task Order only and will not be deemed as a permanent reduction of the prices contained in the Schedule." C-15 II.A.5.3.G.vi States that a Task Order award will include completion/delivery date. This is not consistent with II.A.20.2 where a launch window is established at the award of a Task Order, not a launch date. The RFP will reflect the following change in Paragraph II.A5.3.G.vi: From: Completion/Delivery Date To: Milestones Completion/Delivery Date/Delivery Window as applicable **C-16** II.A.6 Recommend the addition of interim milestones to allow added flexibility in Task Order milestone events and to ensure adequate cash-flow to the Contractor. Change Working Days to Calendar Days to be consistent throughout this provision. The contractor is allowed to propose their milestones within the limitations of II.A.6, Resupply Service Payments, Milestone Milestones

Tuesday, April 08, 2008 Page 30 of 41

Events and Completion Criteria.

C-17	II.A.6 This note states that no greater than 20% of a Task Order value can be paid to the Contractor prior to completion of ISS integration. This presents a cash-flow problem for Contractors who may not complete a demo mission until late 2010. To complete the demo mission and then perform services soon thereafter, more than 20% will need to be paid prior to ISS integration. This is due to the fact that launch vehicles and orbit vehicles require significant up-front investment early in the mission cycle to procure long-lead hardware items. This milestone provision be should replaced with the Government's right to terminate a resupply mission iaw the Termination for Convenience Clause of the contract in the event that the Contractor fails to demonstrate ISS Integration.
Revenue Stream	The final RFP will reflect a changed minimum amount that can be paid to the Contractor prior to completion of ISS Integration.
C-18	II.A.6 The Contractor's commercial practice in similar launch and satellite missions procurements is a withholding of 10% for final milestone determination.
Revenue Stream	Thank you. NASA will take that comment under consideration.
C-19	II.A.8 In the DRFP letter BG-08-036 it is stated on page 2 that NASA plans to award task orders to fulfill the annual resupply demand requirements for 2010 thru 2012 concurrent with award of the contract(s). It would be helpful if NASA would share their expected annual resupply demand requirements for 2010-2012 with the offerors in the RFP to provide a preliminary view of the expected nominal resupply addressable market.
Revenue Stream	The annual resupply demand requirements were provided in the sample task order. For the final RFP they will be also be provided in the instruction to the offerors and the RFP letter.

C-20 II.A.19.B.1 Statement implies that if TLM is not recorded then full mission success payment will be forfeit (50% reduction in 25% total mission success payment). This is a 12.5% total payment reduction for the delivery mission when the cargo delivered may be 100% intact and fully usable. TLM coverage for the long-duration CRS missions may not be 100% at all times - there may be intermittent dropouts in TLM due to ground station pointing issues, TDRSS link issues, atmospheric variation, etc. - this is normal for these types of mission operations. Reduction of the mission success payment by 50% (no means of compromise between 100% and 50% per Table C-8) for TLM dropouts is excessively punitive and presents additional financial risk to the contractor. Suggest making mission success determination linked to % of total delivered cargo that is intact or usable. If TLM does reveal environment

success payment.

Mission Success The final RFP will have a modified mission success clause.

C-21 II.A.19.C.iii Recommend that this criteria be included under Partial Mission Success criteria, or define degree of damage that would determine a Failed Mission.

Mission Success It is often difficult to determine "undamaged" when assessing hardware on orbit. The on orbit crew does not have the ability to fully test hardware and assess its condition. NASA's purpose in picking mission success criteria that were easily identifiable was to minimize the negotiation period and easily assess the criteria for mission success. Yet, NASA appreciates the comment and will re-evaluate the mission success criteria.

exceedances then the mission success payment may be decremented. The CO should have flexibility to adjust mission

C-22 II.A.19.2.A.d Suggest the term unloading.

Mission Success Thank you. NASA will take that comment under consideration.

C-23 II.A.19.3.B Suggest decreasing this time window to 2 months + 1 week.

Mission Success The final RFP will have a modified mission success clause.

Tuesday, April 08, 2008 Page 32 of 41

C-24 II.A.19.1.B.iii upon orbital vehicle integration with ISS

Mission Success

The final RFP will have a modified mission success clause.

C-25

II.A.19.4.B Table C-8 has 3 discrete levels of payment that may not correspond to the level of success achieved for a partial-success mission. For example, if one bag is out of position upon delivery to ISS but all contents are intact, or if there is a slight exceedance of a payload environment but all contents are intact, then a mission success payment of more than 50% and less than 100% may be warranted. Consider CO having capability to determine partial-success payment within ranges of acceptable amounts instead of a bi-level payment system as presented in Table C-8.

Mission Success

The final RFP will have a modified mission success clause.

C-26

II.A.20.3 This would imply that at the last day of month L-13 NASA could decide to move to the front of the 90 day window, meaning that L-13 could become L-10 upon this notification. Suggest that Column 1 of Table C-9 be changed to refer to First Day of L-month to First Day of Cargo Delivery Window - this permits the contractor to plan for hardware and software deliveries and not be surprised by a sudden change of delivery date that is sooner than expected.

Mission Integration

NASA will clarify the table in the Final RFP. The intent of the table is to say that the 90 window is in place from ATP through the Mission Integration review. Then the delivery window is progressively tightened at the key reviews stated in the SOW. NASA has allowed the Contractor the flexibility to propose the timing of these reviews in their Mission Integration and Operations Management Plan within the constraints of the SOW.

C-27 V.A.2.2.2 delete raw

Insight & approval

Thank you. NASA will take that comment under consideration.

Tuesday, April 08, 2008 Page 33 of 41

C-28	V.A.2.2.3 This training shall be the same as given to Contractor personnel
Mission Integration	The Contractor should provide the appropriate training for NASA personnel that are working in the Contractor facilities. If it is the same training or an abbreviated training, this RFP/Contract requires that to be provided to the NASA personnel.
C-29	V.A.2.2.5 The SOW does not contain requirements for a Launch Readiness Review (LRR). See DRL Listing C6 for DRDs associated with the LRR.
Mission Integration	Thank you. The title for that set of deliverables will be re-assessed.
C-30	V.A.2.3 The specific analyses should be defined.
Mission Integration	Thank you. NASA will take that comment under consideration.
C-31	V.A.2.3.3.3.1 Do these requirements pertain to crewed-missions? If so, the PCM, UCM and Crewed SM should have different requirements.
Mission Integration	No. These requirements do not pertain to crewed missions. The training should encompass all of the Contractor's vehicle configurations.
C-32	V.C.C7-1.1 delete raw
Insight & approval	Thank you. NASA will take that comment under consideration.

C-33 Will there be flight demonstrations required? If so, can the first demonstration mission be the first cargo mission i.e. similar to the ESA ATV mission. • Suggested evaluation criteria: No flight demonstration required can be similar to ESA ATV mission.

/Integration

Demonstration No. NASA has required that only ISS Integration needs to be complete prior to the first cargo mission. A certain amount of vehicle flight performance will have be validated but NASA has not dictated the method for that validation. NASA has given the Contractor the flexibility to propose the plan that best matches their resupply mission strategy. That plan can include flight validation through the use of previously flown prox ops capabilities, vehicles, robotic capabilities; validation through a joint demonstration and resupply mission similar to what is currently being performed by the ATV and proposed for the HTV; or by separate demonstration and resupply missions.

C-34 What are the requirements of the demonstration mission i.e. Capability A, B, or C or all. • Suggested evaluation criteria: A bidder will have higher evaluation scores if they bid all of the Capability i.e. A, B, and C as ISS will be a National Laboratory and will need down mass for science missions.

/Integration

Demonstration NASA has given industry the maximum flexibility to propose the plan that bests matches their resupply mission strategy.

C-35If we are not a funded Phase 1 COTS participant, will full funding for the demonstration at proposal submission be an evaluation or entrance criteria? • Suggested evaluation criteria: The financial strength of all the team mates will be considered. The grant/subsidy given to funded Phase 1 COTS participant will be factored in to ensure a level and fair playing field.

/Integration

Demonstration Yes, the RFP outlines the evaluation criteria for the offeror's proposal. NASA will evaluate the mission suitability of the offeror's proposed approach and their ability to meet the requirements of the contract. NASA will also evaluate the cost that the offeror will be proposing to provide the resupply mission services. Mission suitability will be more important than cost. NASA will evaluate the proposals and based on the best value to NASA will award a basic contract and task orders.

Tuesday, April 08, 2008 Page 35 of 41 C-36 Is NASA considering more than 1 firm mission? How many awards is NASA considering? • Suggested RFP language: NASA awards at least 3-5 firm missions to a bidder from 2010-2012.

Revenue Stream

This question will be considered in the final RFP.

C-37

If we are not a funded Phase 1 COTS participant are we at a disadvantage entering the ISS CRS? • Suggested evaluation criteria: To ensure a level playing field among CRS bidders, NASA should include its financial "seed money" investment in the COTS 1 funded Space Act Agreement contractors as a form of "GFE cost" for inclusion in any \$/kg price evaluation per section VII.C. NASA's investment provides a similar "competitive advantage" to those COTS 1 contractors similar in nature to a contractor receiving benefit of using NASA GFE as described in VII.C P1. Since NASA intends to add the "dollar value of the rent free GFEPS to the weighted average price for P2 & P3 for evaluation purposes" it should do likewise for any funded SAA investment.

Evaluation

This is a full and open competition. All offerors will be evaluated per the criteria identified in the RFP. The RFP does not require a funded SAA.

C-38

In the ISS CRS bid can the past performance of our team mates and major subcontractors be considered? • Suggested evaluation criteria: Past performance of our team mates and major subcontractors will be given equal weight to that of a prime bidder with no discrimination.

Evaluation

Yes. "Significant Subcontractor(s)" as detailed in clause VI.A.18, under the General Instructions, will be considered in the evaluation of past performance.

Tuesday, April 08, 2008 Page 36 of 41

C-39 Are there any evaluation criteria or FAR procurement requirements in the ISS CRS that would favor a major traditional aerospace company as a prime over a smaller business? • Suggested evaluation criteria: No discrimination to a small business vs. traditional aerospace company assuming all other evaluation criteria are met i.e. technical, management, price/cost.

EvaluationNo. Under this full and open competitive procurement all offerors will be evaluated in accordance with the procedures in Section VII Evaluation. The procedures were developed to provide maximum competition and a best value decision for NASA.

C-40 In the evaluation criteria, how will NASA evaluate (score) an offer that uses an existing launch vehicle (i.e., EELV) versus one that requires some development but offers lower cost. Will NASA evaluate (score) a domestic launch vehicle as equal to a launch vehicle containing significant foreign content in light of NASA concerns with ITAR risks, insight/oversight, and foreign supply reliance/availability. • Suggested evaluation criteria: Percent of foreign content, advantages to other NASA programs i.e. Ares, NASA Science Missions to be scored higher.

Evaluation No. All offerors will be evaluated in accordance with the procedures in Section VII Evaluation, while meeting the terms and conditions of the other requirements of the contract. NASA will not comment or speculate on how it will evaluate or score specific scenarios.

C-41 In the evaluation criteria, how will NASA evaluate (score) a cargo solution that has multiple market utility i.e., a launch vehicle that can service other NASA needs NASA science mission needs? • Suggested evaluation criteria: Same as above.

Evaluation All offerors will be evaluated in accordance with the procedures in the RFP while meeting the terms and conditions of the other requirements of the contract. NASA will not comment or speculate on how it will evaluate or score specific scenarios.

C-42 Reserved

Overall Reserved

Tuesday, April 08, 2008 Page 37 of 41

C-43	prefers to compete for multiple missions in each task order. Competed task orders are labor intensive without guaranteed return.
Revenue Stream	NASA intends to award task orders as close to the time of award of the basic contract(s) as possible. NASA is allowing flexibility in how offerors propose to meet the annual requirements.
C-44	There should be the added words (underlined): (C) "A mission will be determined a Failed Mission if the orbital vehicle: is unable to berth to or unberth from the ISS due to Contractor Supplied hardware failure".
Mission Success	Thank you. NASA will take that comment under consideration.
C-45	NASA can choose to withhold final payment for 4 months, pending determination of vehicle functionality. Risk of delayed payment. Should be some assurance that this will only be invoked if there is evidence of mission failure/partial failure.
Mission Success	Final RFP will change to 2 months
C-46	Mission Success as related to final payment needs to be better defined. Fraction payments should be tied to vehicle performance.
Mission Success	Thank you. NASA will take that comment under consideration.
C-47	This presents difficulties for contractors who are themselves "small businesses".
Small Business	The RFP states in IV.A.18, Mission Suitability Proposal Instructions, Subfactor C, Small Business Utilization, that the Small Business Subcontracting Plan does not apply to small businesses. However, small businesses should address any participation to the extent that subcontracting opportunities exist.

C-48	Providing NASA employees safety training for all facilities and on the launch vehicle. This is broad and should include "as required" or "as it pertains to individual job functions"
Mission Integration	Thank you. This will be clarified in the Final RFP.
C-49	Complete and comprehensive data on launch vehicle and spacecraft (even for unrelated missions) does not reflect commercial motivations as discussed above.
Insight & approval	NASA finds that anomalies may occur on any mission and that non-advocate reviews bring a different perspective to data.
C-50	While we gladly will support 2 NASA personnel plus two visitors onsite it represents a significant cost penalty for NASA. Since customer personnel require assistance, data products and answers to questions. We must effectively allocate engineers and managers to oversee any resident customer employees. Again, this seems largely redundant for a repetitive, commercial cargo delivery service, potentially flying 6 times each year. Note that even if NASA chooses NOT to send 2 people to monitor every launch, the contractor must still assume this is required for every mission when specifying NTE costs. Suggest this is included as a separate "special service" CLIN002 option that can be called out in a given Task Order/mission only as required.
Insight & approval	It is NASA's experience that resident office personnel fulfill their role by reviewing documents and participating in meetings and reviews that are part of the Contractor's normal course of business. The intent of "visitors" in this clause was for limited extra office space and connectivity when several NASA personnel are attending a review at a Contractor facility. Only the two residents shall be accommodated full-time. As stated in the RFP, NASA will not participate in the launch. If "launch" meant "mission", personnel locations are established through ISS Integration.
C-51	We do not deliver source code but will deliver executable code as requested. As built code products include unit testing plan and results, build scripts, compiler options file, build library description. In an effort to increase efficiency, we recommend this code be made available per CLIN002 request. Similar restrictions apply to Development Tools, Models, and Simulation Code.
Insight & approval	NASA will consider the impacts to its intentions by making C3-3 a non-standard service under CLIN 0002.

C-52	This data product and its level of oversight is inconsistent with a low-cost commercial cargo delivery service. Public safety is protected by Federal Range ground and flight safety requirements and/or by FAA requirements. Launch and delivery vehicle reliability and functionality is driven by commercial forces as discussed above. Additional NASA oversight adds cost to each mission but does not contribute to the end product
Insight & approval	NASA will assess the risk to its investment in the resupply service and to its often-unique cargo. Fiduciary responsibility as the ultimate customer of CRS launches dictates a level of NASA understanding separate from the FAA public safety concerns inherent in any launch.
C-53	This data product and its level of oversight is inconsistent with a low-cost commercial cargo delivery service. Additionally, there is no benefit to resubmittal for every mission unless a baseline change occurs. Add "Notification required by Contractor of any baseline changes"
Insight & approval	NASA concurs that there is no benefit to resubmittal if there are no changes to the baseline. NASA will clarify this intent in the Final RFP.
C-54	"The CAD models will also be used to validate hardware interfaces, to ensure hardware will mate on-orbit with International Space Station and performing Intra-Vehicular analysis." This is the function of the ISS IRD, which should be an Applicable Document (see Comment 8 - Pg 58) and therefore mandates full verification. Having it repeated here provides no benefit and added cost.
Demonstration /Integration	NASA is making the IRD an applicable document. The IRD requires verifications for mated interfaces. However, certain data such as CAD models are needed to perform the verifications.
C-55	Milestones should correspond to significant technical/business events, or are they "financing milestones", as described during the Industry Day briefing. Preference for Mission Management related milestones, in accordance with a typical Launch Service Provider integration flow (customized for ISS Cargo).
Milestones	Yes, milestones should correspond to technical/business events. Payments are financing payments.

C-56 The notion of milestone repayment in the event of "default" on a Task Order is overly broad and runs counter to the milestone approach followed in COTS Phase I. TO's could have multiple missions and if a contractor launched one of the multiple missions, but defaulted on another, the milestone payments for the launched mission should not have to be repaid. This should be made explicit in the contract, with repayments only mandated on a mission-by-mission basis.

Revenue Stream Thank you. NASA will take that comment under consideration.

Tuesday, April 08, 2008 Page 41 of 41